Supplemental statement for Dairy Farmers of America, Inc.

Additional Comments Concerning the Use of Whey

Our proposal requires using all milk proteins in the determination of the 2.25% protein standard. However, for pricing purposes, whey and whey products which are the by-products of cheese-making are not priced. Given the possibility, which has been raised at this hearing, that whey proteins derived from processes other than cheese-making (which would be priced) could be used as protein in fluid milk products, it is important to know (and to be able to demonstrate) that the whey proteins from various sources are distinguishable.

The following USDEC publication, **Whey Products Definition, Composition and Functions** is a general summary of the whey manufacturing process and contains a product description and composition guide.
(http://www.usdec.org/files/pdfs/us08d_04.pdf)

Whey proteins resulting from cheese-making and casein-manufacturing have several different characteristics that make them distinguishable from one another. The whey from cheese making is commonly known as sweet whey while the whey from casein manufacture is termed acid whey. DFA makes and markets both products.
(http://144.92.196.21/pdf/resources/whey/dairyproteins.pdf)

Those different characteristics include:

1) A difference in pH - acid whey has a more acidic pH measure while sweet whey is lower in pH. However, the manufacturer can offset this factor after the whey is manufactured so this difference is not a certain identifier.

2) A difference in the calcium content - according to the USDEC publication **Whey Products, Milk, Minerals and Dairy Calcium,** sweet whey has a calcium content of 700 – 800 mg / 100g while acid whey has 2,000 mg / 100g.
http://www.usdec.org/Files/Publications/12Calcium.pdf

3) A difference in ash content – according to the DMI publication, **Do It With Dairy,** sweet whey has an 8.4% ash composition while acid whey is 10.8%. (http://www.doitwithdairy.com/ingredients/whey/inwheynut.htm)

4) The flavor and functionality profile of sweet whey is superior. A Wisconsin Center for Dairy Research publication, **Quick Guide to Choosing the Best Type of Whey,** lists 60 function and flavor product application characteristics for which sweet whey has 21 desirable attributes and acid whey 7. (http://144.92.196.21/pdf resources/whey/bestwhey.pdf)

5) A difference in titratable acidity - however the manufacturer can offset the factor after the whey is manufactured so this difference is not a certain identifier.

6) The protein glycomacropeptide, valued for medicinal benefits is found only in sweet whey. (http://www.wheyprotein.com/sec9.html) The **Journal of Dairy Science** volume 87:174-177 describes three laboratory methods to recover this protein from – or determine if it is present in -- whey protein isolates. http://jds.fass.org/cgi/content/full/87/1/174#XU-ETAL-2000

These various characteristics make it possible to distinguish between the whey produced from cheese-making, yielding sweet whey, and acid whey which is produced from casein (or cottage cheese) manufacture. The whey component of MPC is more akin to the sweet whey than to acid whey. While it is technically feasible to produce whey from MPC, there is no domestic producer of "whey from MPC" of which we are aware; nor is there an international supplier. Our investigation into this possibility indicates that this process would be expensive and the product produced would not be competitive with sweet whey produced from cheese-making.

If any question arises with respect to whether the whey protein in a fluid milk product should be priced, it is the handler's responsibility to provide any and all proof satisfactory to the Market Administrator of the source of whey proteins the handler has utilized in the fluid milk products.

Additional Comments Concerning Discretion Afforded the Secretary in Product Classification

After additional consideration we would offer this modification to our proposal to provide the Secretary some discretion and latitude in classification of future products that are a result of new technological advances. Our criteria for offering this modification is:

1) There will be new products and advances that challenge the classification provisions;
2) There should be some mechanism to deal with new products that provide some relief to the maker, the industry and the Secretary;
3) There should be some parameters around the discretionary authority so that it is reviewed in a prompt hearing to consider the need for amending the Order language.

Our language to accomplish this is as follows:

(c) Products of new technology. The classification of any product which meets the criteria of paragraph (a) of this section, and which is produced through the use of milk processing or packaging technology not commercially utilized at the time of promulgation of this regulation, shall be determined by the Deputy Administrator, Dairy Programs, AMS by applying the purposes and intention of paragraphs (a) and (b). This determination shall be effective until a permanent classification of the product is established after a hearing pursuant to the Act is held to consider amendments to this subpart. Such hearing shall be held no later than one (1) year after the interim determination of the Deputy Administrator is made.